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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/200,935 | 11/30/98 | YANG | Y 0630-0870P |

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|----------------|--------------|
| EXAMINER | |
| JEAN PIERRE, P | |
| ART UNIT | PAPER NUMBER |

2819

DATE MAILED:
02/16/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/200,935

Applicant(s)
Yang

Examiner

Peguy JeanPierre

Group Art Unit

2819



Responsive to communication(s) filed on Nov 30, 1998

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-32 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-32 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 3/1page

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed on 11/30/98 has been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Walters (USP 4,408,272).

With regard to claims 1-2, Walters discloses in Figure 10 a serial to parallel converter (shift register 120) (see col. 11, lines 50-55) which converts a serial data to a parallel data having a data length of 8 bits or 16 bits (see col. 12, lines 4-7). The data length is made by a length selection circuit (35) under control of the control word stored in a control register (37) connected to the serial parallel converter. With regard to claims 16-17, Walters further disclose in Figure 1 a parallel to serial converter (shift register 20) (see col. 2, lines 44-46) which converts a parallel data to a serial data having a data length of 8 bits or 16 bits (see col. 3, lines 19-21). The

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data length is made by a length selection circuit (35) under control of the control word stored in a control register (37) connected to the parallel to serial converter (20). The shifting of the data length parallely or serially depends on a clock/sync generator (28) connected to the converters (20, 120) via gate (30). The system of Walters further comprises two bits L1, L0, which select the length of the data to be transmitted (see col. 7, lines 38-41).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-15 and 18-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters (USP 4,408,272) in view of the Admitted Prior Art (Figs. 1-3, PP 1-4).

In considering claims 5-15 and 20-32, Walters does not teach a first, a second, a third, and a fourth transfer units which include a first, a second, a third, and a fourth shift registers. Prior art Figure 1 recites clocking scheme (20, 30) coupled to the a plurality of transfer units. The transfer units as illustrated in Figure 2 includes a first and a second transfer units (TX1, TX2) having a first and a second shift registers having the same bit storage capacity. Shift registers are electronic circuits which are known in the art to store digital data, transmit the stored digital data or a portion of the stored digital data according to a particular setting or mode. It is further

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known in the art that the timing, the format (parallel or serial) in which the register transmit the stored digital data is function of the inputted clocking scheme. The clocking scheme generally has variable pulses, intervals, periods which vary according to the length of the data subjected to be transferred. Therefore, it would have been obvious to one having ordinary skill in the art to modify Walters by providing the clocking scheme to the plurality of shift registers as taught by the Prior Art for the benefit of shifting a desired length of data efficiently and in a timely manner.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Khatri et al. (USP 5,347,523), Matoba et al. (USP 5,086,388), Eguchi (USP 4,502,115), and Yoshizaki et al. (USP 4,231,084) disclose data transfer apparatuses.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peguy JeanPierre whose telephone number is (703) 308-1968. Any inquiry of a general nature or related to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group fax number is (703) 308-7722.

Peguy JeanPierre
Peguy JeanPierre

February 10, 2000